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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,218	08/18/2003	Masanori Konishi	33476US2	3460

116 7590 10/15/2004

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EXAMINER

JEFFERY, JOHN A

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,218

Applicant(s)

KONISHI, MASANORI

Examiner

John A. Jeffery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 9-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/890,115.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/18/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election of Claims Without Traverse

Applicant's election of Species A, claims 1-8 without traverse is acknowledged. Accordingly, claims 9-38 are withdrawn from consideration as being directed to a nonelected invention.

Claim Objections

Claims 1-8 are objected to because of the following informalities:

Claim 1: In line 4, "linear" is misspelled.

Claim 6: In line 3, "a" must be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245

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F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 7 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 6,654,549. This is a double patenting rejection.

Claim 8 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 3 of prior U.S. Patent No. 6,654,549. This is a double patenting rejection.

Claim 7 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of copending Application No. 10/615,442. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim 8 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 3 of copending Application No. 10/615,442. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 U.S.C. § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1, 4/1, and 6/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4438870 in view of applicant's admitted prior art. DE4438870 discloses in Figs. 2a-2c an infrared heating lamp comprising flat carbon-based heating elements 17, 18 within sealed quartz tube 21 and two embedded electrodes 36, 37 at each end of the lamp. See English translation and Figs. 1a-2c.

The claims differ from the previously cited prior art in calling for a reflection plate disposed a predetermined distance outside the lamp's glass tube. Providing spaced reflection plates to direct energy radiated from an infrared lamp, however, is well known in the art. For example, applicant in Figs. 25-26(b) and Pages 10-12 of the instant specification discloses a known infrared heating lamp with reflector 280 spaced therefrom. As shown in Fig. 26(a), radiant energy is directed in a certain direction due to the presence of the reflector.

In view of applicant's admitted prior art, it would have been obvious to one of ordinary skill in the art to provide a reflector spaced from the lamp of DE4438870 so that energy radiated from the lamp was directed in a single direction (i.e., towards a workpiece to be heated).

Claim 5/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE4438870 in view of applicant's admitted prior art and further in view of Prince (US 4,319,125). The claim differs from the previously cited prior art in calling for the cross section of the reflector plate to be a shape formed from a combination of plural straight lines. Such a reflector shape, however, is well known in the art. For example, Prince (US 4,319,125) in Fig. 4 and 5 discloses a reflector for radiant heater 12 comprising plural straight lines in cross section that form separate reflective surfaces 42a-42f and 48a-48j. Such a structure facilitates forming the reflector merely by bending a single piece of metal multiple times thus simplifying manufacture. In view of Prince (US 4,319,125), it would have been obvious to one of ordinary skill in the art to form the reflector of the previously described apparatus with a plurality of straight lines in cross section to form the reflector by merely bending a single piece of metal multiple times thus simplifying manufacture.

Claims 2, 4/2, and 6/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4438870 in view of applicant's admitted prior art and further in view of Hofius, Sr. et al (US 6,041,164). The claim differs from the previously cited prior

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art in calling for the reflector to be opposed to the wider side portion of the heating element. But it is well known in the art that the wider side of a flat radiant heater element radiates maximum energy perpendicular to the wide surface. For example, Hofius, Sr. et al (US 6,041,164) in Fig. 9 and col. 2, lines 37-49 teaches that maximum radiant energy is emitted from the flattened wide surfaces in a direction normal thereto (note arrows 26). In view of the well known principle of the maximum energy emission occurring normal to the flat surface as evidenced by Hofius, Sr. et al, it would have been obvious to one of ordinary skill in the art to orient the reflector opposed to this wider surface in the previously described apparatus so that so that the reflector reflected maximum radiant energy emitted from the flat heater, thereby improving efficiency.

Claims 3, 4/3, and 6/3 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4438870 in view of applicant's admitted prior art and further in view of Janin et al (US 5,628,859). The claim differs from the previously cited prior art in calling for the reflector to be opposed to the narrower side of the heating element. Providing a planar heating element with the narrower side opposed to the reflector is conventional and well known in the art as evidenced by Janin et al noting Fig. 6 where planar heater 3 is disposed in the manner claimed. As seen in Fig. 6, such an arrangement enables some radiation to emanate from the edge of the heater directly onto the workpiece in addition to reflected energy from the associated reflector. In view of Janin et al, it would have been obvious to one of ordinary skill in the art to orient the reflector to oppose the narrower side of the planar heater in order to enable some

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radiation to emanate from the edge of the heater directly onto the workpiece in addition to reflected energy from the associated reflector.

Claims 5/2 and 5/3 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4438870 in view of applicant's admitted prior art, Hofius Sr. et al, and further in view of Prince (US 4,319,125). The claims differ from the previously cited prior art in calling for the cross section of the reflector plate to be a shape formed from a combination of plural straight lines. Such a reflector shape, however, is well known in the art. For example, Prince (US 4,319,125) in Fig. 4 and 5 discloses a reflector for radiant heater 12 comprising plural straight lines in cross section that form separate reflective surfaces 42a-42f and 48a-48j. Such a structure facilitates forming the reflector merely by bending a single piece of metal multiple times thus simplifying manufacture. In view of Prince (US 4,319,125), it would have been obvious to one of ordinary skill in the art to form the reflector of the previously described apparatus with a plurality of straight lines in cross section to form the reflector by merely bending a single piece of metal multiple times thus simplifying manufacture.

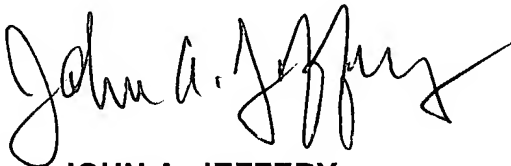
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (703) 306-4601. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans, can be reached on (703) 305-5766. All faxes should be sent to the centralized fax number at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

A handwritten signature in black ink, appearing to read "John A. Jeffery", with a stylized, flowing script.

**JOHN A. JEFFERY
PRIMARY EXAMINER**

10/5/04